



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/041,080	04/18/2002	Isaac Ashie	5997.210-US	3289

25908 7590 09/05/2003

NOVOZYMES NORTH AMERICA, INC.  
500 FIFTH AVENUE  
SUITE 1600  
NEW YORK, NY 10110

EXAMINER

HENDRICKS, KEITH D

ART UNIT

PAPER NUMBER

1761

DATE MAILED: 09/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/041,080

Applicant(s)

ASHIE ET AL.

Examiner

Keith Hendricks

Art Unit

1761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 June 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-15 and 17-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-15 and 17-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Specification*

The disclosure is objected to because of the following informalities:

Page 5, line 20 recites a source of bovine chymosin as "... e.g. Chris Hansen, Inc. \_\_\_\_\_", but the information is incomplete. Correction of the specification is required.

At page 6 of the response, applicants state that this information has been corrected and completed. However, no amendment to the specification at this passage has been submitted.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**i)** Claims 1, 10 and 13 remain rejected under 35 U.S.C. 102(b) as being anticipated by Paulin (EP 0 362 177, of record). The reference and rejection are incorporated as cited in a previous Office action.

Applicants' arguments filed June 10, 2003, have been fully considered but they are not persuasive. At page 8 of the response, applicants state that "Paulin is directed to a method for improving the properties of a forcemeat product." "Forcemeat is not an intact meat, and a method of tenderizing is simply not relevant for such meat products, which are ground or otherwise processed."

This is not deemed persuasive for the reasons of record. The claims are not limited to any particular form of meat product, be it "intact", "comminuted", "ground", etc. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Further, regardless of the intended use of the enzyme with the meat in the reference and in the instantly-claimed invention, as stated in the previous Office action, the reference anticipates the claimed method. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art

Art Unit: 1761

in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

It is noted that page 2 of applicants specification states that “the contacting step comprises, without limitation, injection of meat; marination; or injection of an animal prior to slaughter” (emphasis added).

\* Regarding any potential future amendments to the claims that would require additional search and/or consideration, note the status of the application as now being under Final Rejection.

**ii)** Claims 1, 3-15, and 17-19 remain rejected under 35 U.S.C. 102(b) as being anticipated by Wistreich et al. The reference and rejection are incorporated as cited in a previous Office action.

Applicants’ arguments filed June 10, 2003, have been fully considered but they are not persuasive. At page 9 of the response, applicants state that “Wistreich et al. is directed to a method for producing sausage-type products”, and that “a method for tenderizing meat is not relevant to the production of ground or processed meats such as, a sausage.” “Indeed, the purpose of the enzyme treatment of Wistreich et al. is to improve the moisture of the product, not to tenderize the meat.”

This is not deemed persuasive for the reasons of record. The claims are not limited to any particular form of meat product, be it “intact”, “comminuted”, “ground”, etc. In response to applicant’s argument that the references fail to show certain features of applicant’s invention, it is noted that the features upon which applicant relies are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Further, regardless of the intended use of the enzyme with the meat in the reference and in the instantly-claimed invention, as stated in the previous Office action, the reference anticipates the claimed method. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Art Unit: 1761

It is noted that page 2 of applicants specification states that "the contacting step comprises, without limitation, injection of meat; marination; or injection of an animal prior to slaughter" (emphasis added).

Further, applicants state that "the use of enzymes to modify milk proteins for use in improving the water retention of a ground meat product does not teach or even suggest a method for tenderizing meat." This is not deemed persuasive for the reasons of record. As previously stated on the record, the milk solids and enzyme of the reference "may be added separately or as a premixed composition", and "an aqueous concentrate of enzyme may be added at a subsequent stage of the processing" (col. 2). The method step of the instant claims simply requires the step comprising "contacting meat with a tenderizing-effective amount of" the enzyme. This single step has been met by the reference. Any other limitations or intent that applicant may read into the instant claims, are not actually present in the claims themselves.

\* Regarding any potential future amendments to the claims that would require additional search and/or consideration, note the status of the application as now being under Final Rejection.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**i)** Claims 1, 3-4, 10 and 7-14 remain rejected under **35 U.S.C. 102(b)** as being anticipated by, or in the alternative, are rejected under **35 U.S.C. 103(a)** as being unpatentable over Robbins et al. (US PAT 4,600,589). The reference and rejection are incorporated as cited in a previous Office action.

Applicants' arguments filed June 10, 2003, have been fully considered but they are not persuasive. At page 10 of the response, applicants state that "Robbins et al. does not teach a protease which has the limited substrate specificity recited in the claims, namely, the digestion of only one of the two major protein components of meat."

Art Unit: 1761

This is not deemed persuasive for the reasons of record. As previously stated, Robbins et al. discloses a method of meat tenderization using a protease from *Trichoderma reesei*. "The enzyme is an aspartic acid protease with proteolytic properties similar to the animal protease, cathepsin D. The enzyme acts selectively upon the myofibrillar proteins of meat producing a desirable uniform texture" (abstract, underlining added). It is noted that the myofibrillar proteins are considered "only one of the two major protein components of meat", as required by the instant claims. It is further noted for the record that the Enzyme Classification (EC) of cathepsin D is 3.4.23.5, and the EC for bovine chymosin is 3.4.23.4. Thus, it is clear that the enzyme disclosed in the reference would have the same activity, or very similar within the limitations required by the instant claims.

**ii)** Claims 3-9, 11-12 and 14-15 and 17-19 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Paulin, in view of Wistreich et al., as evidenced by Bender et al. (Dictionary of Nutrition and Food Technology). The references and rejection are incorporated as cited in a previous Office action.

Applicants' arguments filed June 10, 2003, have been fully considered but they are not persuasive. At page 10 of the response, applicants refer to their previous statements regarding the references of Paulin and Wistreich et al., and further state that "the addition of Bender et al. for teaching the use of rennet does not correct the deficiencies of Paulin and Wistreich et al."

As applicants have simply referred to their comments presented with regard to the individual references, and since Bender et al. was cited not as part of the obviousness combination, *per se*, but rather simply as clarification and evidence of that taught by Paulin, the rejection is maintained for the reasons of record. The rejections under 35 U.S.C. 102(b) over both Paulin and Wistreich et al. have been maintained. Further, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Art Unit: 1761

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith Hendricks whose telephone number is (703) 308-2959.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano, can be reached at (703) 308-3959. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3602.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

  
**KEITH HENDRICKS  
PRIMARY EXAMINER**